



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

									July 1999	
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Property	Crops	Character of Storm
<u>MINNESOTA, Northeast</u>										
Cass County										
Walker	04	0859CST			0	0				Thunderstorm Wind (G61)
Itasca County										
21 NNE Coleraine	04	0920CST			0	0				Thunderstorm Wind (G65)
Itasca County										
Blackberry	04	0941CST			0	0				Hail (1.50)
Itasca County										
Grand Rapids	04	1000CST			0	0				Thunderstorm Wind (G50)
Large trees were blown down. The wind speed is estimated.										
Aitkin County										
Hill City	04	1025CST			0	0				Thunderstorm Wind (G52)
Public-reported winds to 60 mph blew down many large branches										
The state of Minnesota estimated total costs of damage and debris clearance at more than \$3.3 million for the July 4th severe weather events in Itasca, Cass, and Aitkin counties.										
St. Louis County										
Hibbing	04	1027CST			0	0	80K			Thunderstorm Wind (G70)
A hanger and the terminal building at Chisholm-Hibbing Airport suffered structural damage										
St. Louis County										
Gheen	04	1030CST			0	0				Thunderstorm Wind (G56)
Thunderstorm winds estimated at 65 mph blew down trees and power lines.										
St. Louis County										
12 SW Virginia	04	1039CST			0	0				Thunderstorm Wind (G56)
Thunderstorm winds were estimated by the public at 65 mph.										
St. Louis County										
Tower	04	1045CST			0	0				Thunderstorm Wind (G55)
Large trees were blown down. The wind speed is estimated.										
St. Louis County										
4 E Floodwood	04	1050CST			0	0				Thunderstorm Wind (G50)
Trees and power lines were blown down. The wind speed is estimated.										
St. Louis County										
Hibbing	04	1052CST			0	0				Thunderstorm Wind (G61)
St. Louis County										
Independence	04	1055CST			0	0				Hail (0.75)
St. Louis County										
Canyon	04	1055CST			0	0				Thunderstorm Wind (G60)
A semi-trailer truck was blown over. The wind speed is estimated.										
St. Louis County										
7 S Biwabik	04	1107CST			0	0				Thunderstorm Wind (G50)
Tree branches up to eight inches in diameter were blown down. The wind speed is estimated.										
St. Louis County										
6 E Hibbing	04	1112CST			0	0				Thunderstorm Wind (G55)
Power lines and 12-inch diameter tress were blown down. The wind speed is estimated.										
St. Louis County										
Babbitt	04	1120CST			0	0				Thunderstorm Wind (G50)
Large trees were blown down. The wind speed is estimated.										
St. Louis County										
Whiteface	04	1122CST			0	0				Thunderstorm Wind (G52)



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

### MINNESOTA, Northeast

<b>St. Louis County</b> <b>Brimson</b>	<b>04</b>	<b>1130CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>
<b>Lake County</b> <b>27 NW Silver Bay</b>	<b>04</b>	<b>1130CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Numerous trees were blown down. The wind speed is estimated.									
<b>St. Louis County</b> <b>Cotton</b>	<b>04</b>	<b>1130CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>
<b>St. Louis County</b> <b>Cook</b>	<b>04</b>	<b>1130CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees were blown down. The wind speed is estimated.									
The state of Minnesota estimated total costs of damage and debris clearance for the July 4th storms in St. Louis county at more than \$3.8 million.									
<b>Lake County</b> <b>40 N Silver Bay</b>	<b>04</b>	<b>1142CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Twelve-inch diameter trees were blown down. The wind speed is estimated.									
<b>Lake County</b> <b>70 N Two Harbors</b>	<b>04</b>	<b>1150CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G55)</b>
Trees and power lines were blown down near Basswood Lake. The wind speed is estimated.									
<b>Cook County</b> <b>25 NNW Grand Marais</b>	<b>04</b>	<b>1220CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G60)</b>
Numerous trees and power lines were blown down. The wind speed is estimated.									
A widespread convective windstorm called a "derecho" swept across the Arrowhead region of northeastern Minnesota on July 4th. Strong, straight-line winds in excess of 80 mph devastated a large area of the Boundary Waters Canoe Area Wilderness (BWCAW). This area is very sparsely populated, but thousands of trees in an area approximately 30 miles long by 12 miles wide, or about a quarter million acres, were levelled. The timber loss was estimated at .5 to .75 million cords and valued at between \$12 and \$18 million. Because much of the timber was torn and splintered, the salvage value was estimated to be only about \$5 million. The hardest hit area was from Moose Lake in the BWCAW to near ELY to the Gunflint Trail, where hardly a tree was left standing. Twenty people, injured by falling trees, had to be airlifted to area hospitals. A man was crushed under a tree for four hours, and a woman was pinned under a tree with both legs broken. The state of Minnesota estimated the cost of other damage and debris clearance for Lake and Cook counties at nearly \$5 million.									
<b>Crow Wing County</b> <b>1 S Pequot Lakes</b>	<b>04</b>	<b>1310CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G55)</b>
Numerous trees up to 36 inches in diameter were blown down. The wind speed is estimated.									
<b>Itasca County</b> <b>Countywide</b>	<b>05</b>	<b>0030CST</b> <b>0430CST</b>			<b>0</b>	<b>0</b>			<b>Flash Flood</b>
<b>St. Louis County</b> <b>Central Portion</b>	<b>05</b>	<b>0030CST</b> <b>1200CST</b>			<b>0</b>	<b>0</b>			<b>Flash Flood</b>
<b>Lake County</b> <b>South Portion</b>	<b>05</b>	<b>0220CST</b> <b>1800CST</b>			<b>0</b>	<b>0</b>			<b>Flash Flood</b>
<b>St. Louis County</b> <b>Southeast Portion</b>	<b>05</b>	<b>0220CST</b> <b>1800CST</b>			<b>0</b>	<b>0</b>			<b>Flash Flood</b>
<b>Cook County</b> <b>South Portion</b>	<b>05</b>	<b>0410CST</b> <b>1800CST</b>			<b>0</b>	<b>0</b>			<b>Flash Flood</b>



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

### MINNESOTA, Northeast

Heavy rain from thunderstorms forming and moving repeatedly across the same areas produced flash flooding from Itasca county across the southern two-thirds of St. Louis county, into the Arrowhead region of northeastern Minnesota. Many highways and hundreds of basements on the Iron Range and the North Shore were flooded. The tracks of several railroads were washed out. Duluth doppler radar gave rainfall estimates around 6 inches. In St. Louis county, road damage alone amounted to about \$800,000. Cook county had \$850,000 in damage, with \$250,000 in Lake county, and \$850,000 in Itasca county. The heavy rain also caused low oxygen levels in some area rivers, resulting in the death of thousands of fish.

<b>St. Louis County</b> <b>2 N Island Lake</b>	<b>05</b>	<b>1425CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Numerous trees were down on County Highway 4. The wind speed is estimated.
<b>Cass County</b> <b>Backus</b>	<b>13</b>	<b>1715CST</b> <b>1730CST</b>			<b>0</b>	<b>0</b>			<b>Hail (1.00)</b>
<b>Cass County</b> <b>7 N Pine River</b>	<b>13</b>	<b>1802CST</b>			<b>0</b>	<b>0</b>			<b>Hail (1.00)</b>
<b>Itasca County</b> <b>Squaw Lake</b>	<b>15</b>	<b>1711CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>
									Public-estimated winds to 60 mph knocked down 8-inch diameter trees.
<b>St. Louis County</b> <b>Gheen</b>	<b>15</b>	<b>1955CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees and power lines were blown down. The wind speed is estimated.
<b>Itasca County</b> <b>Grand Rapids</b>	<b>15</b>	<b>1955CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>
									Thunderstorm winds were estimated by the public at 60 mph.
<b>Cass County</b> <b>Pillager</b>	<b>22</b>	<b>2315CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Power lines were blown down. The wind speed is estimated.
<b>Crow Wing County</b> <b>Brainerd</b>	<b>22</b>	<b>2315CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees were blown down. The wind speed is estimated.
<b>Crow Wing County</b> <b>Deerwood</b>	<b>22</b>	<b>2315CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees and large branches were blown down. The wind speed is estimated.
<b>Aitkin County</b> <b>Aitkin</b>	<b>23</b>	<b>0000CST</b> <b>0005CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G61)</b>
									Winds measured at 70 mph blew down trees in the city and caused damage to planes and hangers at the Aitkin Municipal Airport.
<b>Aitkin County</b> <b>Mc Gregor</b>	<b>23</b>	<b>0025CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees were blown down. The wind speed is estimated.
<b>Carlton County</b> <b>Kettle River</b>	<b>23</b>	<b>0038CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees were blown down. The wind speed is estimated.
<b>Pine County</b> <b>Sturgeon Lake</b>	<b>23</b>	<b>0041CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees were blown down. The wind speed is estimated.
<b>Carlton County</b> <b>Moose Lake</b>	<b>23</b>	<b>0042CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
									Trees were blown down. The wind speed is estimated.
<b>St. Louis County</b> <b>3 S Floodwood</b>	<b>23</b>	<b>0100CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

### MINNESOTA, Northeast

Numerous trees were blown down. The wind speed is estimated.

<b>Carlton County</b>									
<b>Cloquet</b>	<b>23</b>	<b>0116CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Trees were blown down. The wind speed is estimated.

<b>Lake County</b>									
<b>Two Harbors</b>	<b>25</b>	<b>1013CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Six-inch diameter trees were blown down. The wind speed is estimated.

<b>Itasca County</b>									
<b>Squaw Lake</b>	<b>25</b>	<b>1435CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>

<b>Itasca County</b>									
<b>Bigfork</b>	<b>25</b>	<b>1525CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G61)</b>

<b>Itasca County</b>									
<b>4 S Bigfork</b>	<b>25</b>	<b>1538CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G61)</b>

<b>Crow Wing County</b>									
<b>Cross Lake</b>	<b>25</b>	<b>1545CST</b> <b>1600CST</b>			<b>0</b>	<b>3</b>			<b>Thunderstorm Wind (G70)</b>

Several recreational vehicles at a campground were damaged or destroyed, with three minor injuries. Many trees were blown down, and there was some damage to mobile homes and several other vehicles.

<b>Itasca County</b>									
<b>Deer River</b>	<b>25</b>	<b>1549CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G70)</b>

<b>Crow Wing County</b>									
<b>Nisswa</b>	<b>25</b>	<b>1553CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Trees were blown down. The wind speed is estimated.

<b>Crow Wing County</b>									
<b>Cross Lake</b>	<b>25</b>	<b>1553CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Numerous trees were blown down. The wind speed is estimated.

<b>Cass County</b>									
<b>Cass Lake</b>	<b>25</b>	<b>1608CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Large trees were blown down. The wind speed is estimated.

<b>St. Louis County</b>									
<b>Hibbing</b>	<b>25</b>	<b>1615CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>

<b>St. Louis County</b>									
<b>Hibbing</b>	<b>25</b>	<b>1620CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G61)</b>

<b>Aitkin County</b>									
<b>3 SE Tamarack</b>	<b>25</b>	<b>1630CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G60)</b>

Trees were knocked down and the roofs were blown off of two farmsteads.

<b>Aitkin County</b>									
<b>Jacobson</b>	<b>25</b>	<b>1636CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G55)</b>

Numerous trees were blown down in the Savanna State Forest. The wind speed is estimated.

<b>Aitkin County</b>									
<b>Palisade</b>	<b>25</b>	<b>1636CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G55)</b>

Numerous trees and power lines were blown down. The wind speed is estimated.

<b>Carlton County</b>									
<b>Mahtowa</b>	<b>25</b>	<b>1715CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Trees and power lines were blown down. The wind speed is estimated.

<b>St. Louis County</b>									
<b>Floodwood</b>	<b>25</b>	<b>1715CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>

Trees and power lines were blown down. The wind speed is estimated.



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<b><u>MINNESOTA, Northeast</u></b>									
<b>St. Louis County</b> <b>Mountain Iron</b>	25	1720CST			0	0			Thunderstorm Wind (G50)
									Power lines and large trees were blown down. The wind speed is estimated.
<b>St. Louis County</b> <b>Duluth</b>	25	1732CST 1736CST			0	0			Thunderstorm Wind (G56)
									Winds to 65 mph were reported at Chester Bowl Park, blowing down 12-inch diameter trees.
<b>St. Louis County</b> <b>Duluth</b>	25	1751CST			0	0			Thunderstorm Wind (G50)
									Six-inch diameter trees were blown down. The wind speed is estimated.
<b>St. Louis County</b> <b>Duluth</b>	25	1759CST			0	0			Thunderstorm Wind (G50)
									Six-inch diameter branches were blown down. The wind speed is estimated.
<b>Lake County</b> <b>Knife River</b>	25	1803CST			0	0			Thunderstorm Wind (G50)
									Six-inch diameter trees were blown down. The wind speed is estimated.
<b>Itasca County</b> <b>Squaw Lake</b>	27	1621CST			0	0			Hail (0.75)
<b>Itasca County</b> <b>Squaw Lake</b>	27	1648CST			0	0			Hail (1.50)
<b>Cass County</b> <b>Cass Lake</b>	27	1652CST			0	0			Hail (0.75)
<b>Itasca County</b> <b>Bigfork</b>	27	1720CST			0	0			Hail (0.75)
<b>Itasca County</b> <b>Marble</b>	27	1753CST			0	0			Hail (0.75)
<b>Itasca County</b> <b>Bovey</b>	27	1806CST			0	0			Hail (1.00)
<b>St. Louis County</b> <b>2 S Toivola</b>	27	1859CST 1900CST	0	8.3	0	0			Tornado (F0)
									A sheriff deputy reported a very brief touchdown of a weak tornado that caused no damage. The path length was only about 50 feet.
<b>Crow Wing County</b> <b>Ft Ripley</b>	28	2337CST			0	0			Hail (0.75)
<b>Crow Wing County</b> <b>10 E Ft Ripley</b>	28	2346CST			0	0			Hail (1.75)
<b>Koochiching County</b> <b>International Falls</b>	29	0006CST			0	0			Thunderstorm Wind (G50)
									Trees and power lines were blown down. The wind speed is estimated.
<b>St. Louis County</b> <b>Cook</b>	29	0100CST			0	0			Thunderstorm Wind (G50)
									Trees were blown down. The wind speed is estimated.
<b>Pine County</b> <b>Hinckley</b>	30	1510CST			0	0			Hail (1.00)
<b>Pine County</b> <b>Brook Park</b>	30	1510CST			0	0			Thunderstorm Wind (G50)
									Trees were blown down. The wind speed is estimated.



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

### MINNESOTA, Northeast

#### Pine County

Askov	30	1540CST			0	0			Thunderstorm Wind (G52)
-------	----	---------	--	--	---	---	--	--	-------------------------

#### Carlton County

Holyoke	30	1612CST			0	0			Thunderstorm Wind (G50)
---------	----	---------	--	--	---	---	--	--	-------------------------

Tree limbs up to 12 inches in diameter were blown down. The wind speed is estimated.

### WISCONSIN, Northwest

#### Bayfield County

Bayfield	04	2030CST			0	0			Thunderstorm Wind (G50)
----------	----	---------	--	--	---	---	--	--	-------------------------

Trees were blown down. The wind speed is estimated.

#### Bayfield County

North Portion	05	0820CST 1800CST			0	0	500K		Flash Flood
---------------	----	--------------------	--	--	---	---	------	--	-------------

Highways and bridges near Port Wing, Bayfield, and Washburn were flooded by heavy rain from slow-moving thunderstorms

#### Douglas County

Solon Springs	05	1515CST			0	0			Thunderstorm Wind (G55)
---------------	----	---------	--	--	---	---	--	--	-------------------------

Trees up to 20 inches in diameter were blown down. The wind speed is estimated.

#### Bayfield County

5 E Iron River	05	1515CST			0	0			Thunderstorm Wind (G50)
----------------	----	---------	--	--	---	---	--	--	-------------------------

Trees were blown down in the Long Lake area. The wind speed is estimated.

#### Bayfield County

18 S Iron River	05	1520CST			0	0			Thunderstorm Wind (G50)
-----------------	----	---------	--	--	---	---	--	--	-------------------------

Trees and power lines were blown down around Barnes. The wind speed is estimated.

#### Douglas County

6 E Gordon	05	1525CST			0	0			Thunderstorm Wind (G50)
------------	----	---------	--	--	---	---	--	--	-------------------------

Trees were blown down. The wind speed is estimated.

#### Bayfield County

Drummond	05	1526CST			0	0			Thunderstorm Wind (G50)
----------	----	---------	--	--	---	---	--	--	-------------------------

Trees and power lines were blown down. The wind speed is estimated.

#### Bayfield County

5 SE Drummond	05	1530CST			1	0			Thunderstorm Wind (G50)
---------------	----	---------	--	--	---	---	--	--	-------------------------

An eleven-year-old boy was killed when he was struck by a falling tree as he was heading for shelter at the Chequamegon Boy's Camp. M11CA

#### Ashland County

Ashland	05	1534CST 1540CST			0	0			Thunderstorm Wind (G52)
---------	----	--------------------	--	--	---	---	--	--	-------------------------

Tree branches and power lines were blown down.

#### Iron County

Saxon	05	1540CST			0	0			Thunderstorm Wind (G55)
-------	----	---------	--	--	---	---	--	--	-------------------------

Power lines and 3-foot diameter trees were blown down across U.S. Highway 2, and there was some structural damage in the Saxon area. The wind speed is estimated.

#### Bayfield County

Namekagon	05	1546CST			0	0			Thunderstorm Wind (G50)
-----------	----	---------	--	--	---	---	--	--	-------------------------

Trees and power lines were blown down. The wind speed is estimated.

#### Iron County

Hurley	05	1605CST			0	0			Thunderstorm Wind (G50)
--------	----	---------	--	--	---	---	--	--	-------------------------

Trees and power lines were blown down. The wind speed is estimated.



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

July 1999									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<b><u>WISCONSIN, Northwest</u></b>									
<b>Burnett County Webster</b>	<b>09</b>	<b>1310CST</b>			<b>0</b>	<b>0</b>			<b>Hail (1.00)</b>
<b>Bayfield County Central Portion</b>	<b>14</b>	<b>2000CST 2240CST</b>			<b>0</b>	<b>0</b>	<b>500K</b>		<b>Flash Flood</b>
Heavy thunderstorm rains caused U.S. Highway 2 and State Highway 118 to flood and partially wash out.									
<b>Bayfield County Namekagon</b>	<b>14</b>	<b>2125CST</b>			<b>0</b>	<b>0</b>			<b>Hail (1.75)</b>
<b>Burnett County Grantsburg</b>	<b>23</b>	<b>0050CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees and power lines were blown down. The wind speed is estimated.									
<b>Douglas County Superior</b>	<b>23</b>	<b>0133CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G52)</b>
<b>Sawyer County 21 ENE Hayward</b>	<b>23</b>	<b>0220CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G55)</b>
Trees up to 3 feet in diameter were knocked down. The wind speed is estimated.									
<b>Sawyer County Hayward</b>	<b>23</b>	<b>0220CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees and power lines were blown down. The wind speed is estimated.									
<b>Price County 5 S Phillips</b>	<b>23</b>	<b>0310CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees and power lines were blown down. The wind speed is estimated.									
<b>Iron County Mercer</b>	<b>23</b>	<b>0340CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees were blown down. The wind speed is estimated.									
<b>Ashland County Ashland</b>	<b>23</b>	<b>0350CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees and power lines were blown down. A window at the fire station was broken. The wind speed is estimated									
<b>Douglas County Solon Springs</b>	<b>25</b>	<b>1850CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees and power lines were blown down. The wind speed is estimated.									
<b>Burnett County Hertel</b>	<b>25</b>	<b>1850CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees and power lines were blown down. The wind speed is estimated.									
<b>Washburn County Minong</b>	<b>25</b>	<b>1900CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Trees were blown down. The wind speed is estimated.									
<b>Bayfield County Moquah</b>	<b>25</b>	<b>1910CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Large trees were blown down. The wind speed is estimated.									
<b>Sawyer County Hayward</b>	<b>25</b>	<b>1919CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Large trees were blown down. The wind speed is estimated.									
<b>Sawyer County Hayward</b>	<b>25</b>	<b>1937CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
Many trees were blown down. The wind speed is estimated.									



# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<b><u>WISCONSIN, Northwest</u></b>									
<b>Sawyer County</b>									
Hayward	25	2003CST			0	0			Thunderstorm Wind (G50)
A tree was blown down on to a house. The wind speed is estimated.									
<b>Ashland County</b>									
Butternut	25	2004CST			0	0			Thunderstorm Wind (G52)
A weather spotter estimated thunderstorm winds at 60 mph.									
<b>Sawyer County</b>									
Hayward	25	2030CST			0	0			Thunderstorm Wind (G50)
Large trees were blown down. The wind speed is estimated.									
<b>Sawyer County</b>									
Winter	25	2030CST			0	0			Thunderstorm Wind (G50)
Large trees were blown down. The wind speed is estimated.									
<b>Sawyer County</b>									
Stone Lake	25	2030CST			0	0			Thunderstorm Wind (G50)
Large trees were blown down. The wind speed is estimated.									
<b>Douglas County</b>									
Countywide	25	2030CST 2330CST			0	0	2M		Flash Flood
Flash flooding caused by very heavy thunderstorm rains occurred across much of the county, with many roads washed out or under water. Hardest hit was the central part of the county, including Parkland, Oakland, and Solon Springs townships. U.S. Highway 53 in the city of Solon Springs and County Highway C near South Range were under several feet of water through the night, and traffic had to be rerouted. Streets and basements in the city of Superior were also flooded. The total cost of damage county-wide was nearly \$2 million.									
<b>Price County</b>									
Catawba	25	2137CST			0	0			Thunderstorm Wind (G52)
<b>Burnett County</b>									
Danbury	30	1658CST			0	0			Thunderstorm Wind (G50)
Trees were blown down. The wind speed is estimated.									
<b>Douglas County</b>									
Wascott	30	1703CST			0	0			Thunderstorm Wind (G50)
Trees and power lines were blown down. The wind speed is estimated.									
<b>Washburn County</b>									
Minong	30	1723CST			0	0			Thunderstorm Wind (G50)
Trees were blown down. The wind speed is estimated.									
<b>Bayfield County</b>									
Drummond	30	1730CST			0	0			Hail (1.00)
<b>Bayfield County</b>									
Cable	30	1730CST			0	0			Hail (1.00)
<b>Bayfield County</b>									
18 S Iron River	30	1730CST			0	0			Hail (1.00)
<b>Washburn County</b>									
Spooner	30	1732CST			0	0			Thunderstorm Wind (G55)
Trees and power lines were blown down, and some roofs were torn off. The wind speed is estimated.									
<b>Bayfield County</b>									
Grandview	30	1740CST			0	0			Thunderstorm Wind (G50)
Trees and power lines were blown down. The wind speed is estimated.									





# National Weather Service

## Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

### WISCONSIN, Northwest

#### Sawyer County

<b>Hayward</b>	<b>30</b>	<b>1745CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
----------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees and power lines were blown down. The wind speed is estimated.

#### Douglas County

<b>10 E Solon Springs</b>	<b>30</b>	<b>1758CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
---------------------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees were blown down. The wind speed is estimated.

#### Ashland County

<b>Mellen</b>	<b>30</b>	<b>1815CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G87)</b>
---------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees were blown down. Observers estimated wind speeds at 70 mph sustained, with gusts to 100 mph.

#### Ashland County

<b>Glidden</b>	<b>30</b>	<b>1825CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
----------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees and power lines were blown down. The wind speed is estimated.

The strong thunderstorm winds caused an estimated \$243,000 in damage across Ashland county.

#### Sawyer County

<b>Loretta</b>	<b>30</b>	<b>1838CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
----------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees and power lines were blown down. The wind speed is estimated.

#### Price County

<b>5 SW Phillips</b>	<b>30</b>	<b>1845CST</b>			<b>0</b>	<b>2</b>	<b>500K</b>		<b>Thunderstorm Wind (G76)</b>
----------------------	-----------	----------------	--	--	----------	----------	-------------	--	--------------------------------

The strong winds blew down trees and power lines and flipped a boat and trailer, tossing them 71 feet. A tree fell on a house, puncturing holes in the roof. The strong winds also blew a 33-inch diameter pine tree down across a minivan, causing minor injuries to 2 people.

#### Iron County

<b>Saxon</b>	<b>30</b>	<b>1900CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
--------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees were blown down. The wind speed is estimated.

#### Iron County

<b>Montreal</b>	<b>30</b>	<b>1900CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
-----------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees were blown down. The wind speed is estimated.

#### Price County

<b>Catawba</b>	<b>30</b>	<b>1915CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G60)</b>
----------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

A barn was blown down. The wind speed is estimated.

#### Price County

<b>Prentice</b>	<b>30</b>	<b>1915CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G65)</b>
-----------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees and power lines were blown down. A semi-trailer was overturned.

Damage from all July storms in Price county was estimated at \$186,500.

#### Iron County

<b>Manitowish</b>	<b>30</b>	<b>1920CST</b>			<b>0</b>	<b>0</b>			<b>Thunderstorm Wind (G50)</b>
-------------------	-----------	----------------	--	--	----------	----------	--	--	--------------------------------

Trees and power lines were blown down. The wind speed is estimated.

Damage from all July storms in Iron county was estimated at \$79,000.